REMARKS

Specification

The present Office Action indicates the title is not descriptive. Applicants have amended the title to read "a flash memory cell with drain and source formed by diffusion of a dopant from a silicide."

Drawings

The present Office Action objected to Figure 3. Applicants have submitted a drawing amendment concurrently with this response that has a character reference "331" to indicate the sidewalls.

Claim Objections

Applicants have amended Claim 8 to read "said well component", "diffusion", and "said silicide"

112 Rejections

Applicants have amended Claim 10.

103 Rejections

The present Office Action indicates Claims are rejected under 35 U.S.C. 103 (a) as being unpatentable over Liu et al. (US Patent No.5,814,854) in view of Misra et al. (US Patent No. 5,960,270). Applicant respectfully asserts that the present invention is neither shown nor suggested by the references, alone or together. The present Office Action acknowledges that the Liu reference fails to teach a source component and a drain component are formed by implantation of a dopant and diffusion of the dopant from a silicide.

Applicants respectfully contends that the present invention as newly amended in Claim 8 is neither shown nor suggested by the Misra et al. reference and the Liu et al. reference, alone or together in combination. Specifically the present invention, as set forth in newly amended independent Claim 8, recites:

> a source component ... formed by implantation of a dopant and diffusion of said dopant from a silicide in a source metal contact region, ... and
>
> a drain component ... formed by implantation of a dopant and diffusion of said dopant from said silicide in a drain metal contact region, ...

Applicants respectfully asserts that the present invention as recited in the newly amended claims is neither shown nor suggested by the Misra et al reference.

To the extent the Misra et al. reference may mention a thermal drive process is utilized to drive the dopant atoms out of two silicide regions 18, Applicants respectfully asserts the Misra et al. reference does not teach silicide in a source metal contact region as claimed in the present application. Applicants respectfully asserts that the Misra et al.

reference teaches away from the present claimed invention by indicating the silicide layer 18 is removed from opening 24 [FIG 3 and Col. 5 line 59] used to form metal gate 28b [Fig 3]. Applicants respectfully assert one of ordinary skill in the art at the time of the present application would not find a motivation or suggestion to combine the flash EEPROM cell as described in the Liu et al. reference with the an NMOS transistor having metallic gate electrode that is formed after the formation of source and drain regions as described in the Misra et al. reference to teach the present claimed invention.

Applicants respectfully assert that Claims 9 through 14 are allowable as depending from an allowable independent Claim 8.

With regards to Claim 9, the present Office Action alleges the Liu reference discloses source and drain form sallow junctions. To the extent the Liu reference may mention a shallow lightly doped channel 112, Applicants respectfully assert the Liu et al reference does not teach said source and drain form shallow junctions as claimed in the present invention.

With regards to newly amended Claim 11, to the extent the Misra et al. refernce may mention a temperature between 800 and 1000 C [Col. 6 lines 19 –20], Applicants respectfully assert the Misra reference does not teach said diffusion is performed in a temperature range of about 600 to 800 Celsius.

With regards to Claim 14, the present office action alleges the Liu reference discloses a sidewall spacer of thickness of about 50′ to about 800′ and it would be

obvious to discover optimum or working ranges. Applicants respectfully assert the Liu reference does not mention 50' to about 800'.

Thus, Applicant respectfully asserts that Liu et al. reference and the Misra et al. reference do not teach the present claimed invention, alone or together.

Conclusion

In light of the above-listed amendments and remarks, Applicants respectfully request allowance of the remaining Claims. The examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

WAGNER, MURABITO & HAO

Date: 3/22/05

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
FANG et al.	Examiner: Huynh, Andy
Serial No.: 10/661,720	Art Unit: 2818
Filed: SEPTEMBER 11,2003	
For: A FLASH MEMORY CELL WITH DRAIN AND SOURCE FORMED BY DIFFUSION OF A DOPANT FROM A SILICIDE	

DRAWING AMENDMENT

Assistant Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Dear Sir:

Applicant respectfully submits a following single sheet of replacement drawing amendments in order to correct the contents of Figure 3.

Figure 3:

Applicants submit that within Figure 3, drawing amendments are used to indicate reference number 331 for sidewall spacers.

Applicant respectfully asserts that no new matter is introduced as a result of these proposed drawing amendments and respectfully request the Examiner's review and approval thereof.

Respectfully submitted,

WAGNER, MURABITO & HAO

Date: 3/22/05

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